

Remarks

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested.

The specification and abstract have been reviewed and revised to make a number of editorial revisions thereto. Due to the number of changes involved, a substitute specification and abstract including the revisions have been prepared and are submitted herewith. No new matter has been added by the revisions.

Claims 19 and 22 have been objected to as containing minor informalities. Claims 19 and 22 have been amended so as to address these informalities. As a result, withdrawal of the objection is respectfully requested.

Claims 1-47 and 81-91 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for a number of reasons. Claims 1-47 and 81-91 have been amended so as to address the rejection under 35 U.S.C. §112, second paragraph. As a result, withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Further, claims 1-63 and 81-92 have been amended to make a number of editorial revisions thereto. These revisions have been made to place the claims in better U.S. form. None of these amendments have been made to narrow the scope of protection of the claims, nor to address issues related to patentability and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

In addition, withdrawn claims 64-80 have been canceled without prejudice or disclaimer to the subject matter contained therein.

Claims 1-34, 38-40, 42-47, 81-84 and 86-91 have been rejected under 35 U.S.C. §102(b) as being anticipated by Neuschäfer (WO 96/35940). Claims 35-37 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Neuschäfer in view of Hashimoto (US 6,480,639). Claims 41 and 85 are rejected under 35 U.S.C. §103(a) as being unpatentable over Neuschäfer. These rejections are respectfully traversed and submitted to be inapplicable to the claims for the following reasons.

Claim 1 is patentable over Neuschäfer, since claim 1 recites a device having, in part, a plurality of sample compartments, wherein each of the sample compartments has different biological or biochemical recognition elements for specific recognition and binding of different

analytes immobilized in five or more discrete measurement areas in a two-dimensional array on a planar optical waveguide. Neuschäfer fails to disclose or suggest a 2-dimensional array of measurement areas in each sample compartment as recited in claim 1.

Neuschäfer discloses a device having a laser diode 13, a coupling-in grating 3 located on a sensor platform 8, a coupling-out grating 3' also located on the sensor platform 8, and a detector 14. A first filter 9 is located between the laser diode 13 and the coupling-in grating 3 and a second filter 9 is located between the coupling-out grating 3' and the detector 14. The sensor platform 8 contains a waveguide 1 such that light enters the waveguide 1 from the coupling-in grating 3 and exits the waveguide 1 from the coupling-out grating 3'. A flow through cell 11 is attached to the bottom of the sensor platform 8 via a plurality of seals 10, thereby creating a sample space 12 between the sensor platform 8 and the flow through cell 11.

Further, Neuschäfer also discloses a waveguiding arrangement having a number of detection regions 4 located on a waveguiding layer 5. Each of the detection regions 4 includes the coupling-in grating 3 and, optionally, the coupling-out grating 3' and a number of divisions 2 forming a plurality of strip-like waveguiding regions in each of the detection regions 4. (See Figures 1a, 2a, 3a, 4a, 5a and 6 and page 29).

While Neuschäfer discloses the sample space 12 and the plurality of strip-like waveguiding regions defined by the divisions 2, it is apparent that Neuschäfer fails to disclose or suggest that the either of these elements includes a 2-dimensional array of measurement areas in each sample compartment. Instead, the strip-like waveguiding regions defined by the divisions 2, at best, can be said to correspond to a 1-dimensional array. As a result, Neuschäfer fails to disclose or suggest the present invention as recited in claim 1.

As for Hashimoto, it is relied upon as disclosing an optically transparent resin 9 and a light absorbent 8. However, Hashimoto fails to disclose or suggest the 2-dimensional array of measurement areas in each sample compartment as recited in claim 1.

Since claim 1 is patentable over the references relied upon in the rejections, it is submitted that withdrawn claims 48-63 and 92 be given due consideration as being either directly or indirectly dependent from claim 1.

Because of the above-mentioned distinctions, it is believed clear that claims 1-63 and 81-92 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention


would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-63 and 81-92. Therefore, it is submitted that claims 1-63 and 81-92 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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